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MEMORANDUM

TO: Chand Sultana
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FROM: Karen W. DiBiasio, Ph.D. *Karen W. DiBiasio*
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Office of Human and Ecological Risk
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DATE: January 28, 2015

SUBJECT: Former Pechiney Cast Plate, Inc.
Final Phase I Completion Report

PCA Code: 11018

Site Code: 301396 WP: 00

DOCUMENT REVIEWED

Per your November 25, 2014 request, The Human and Ecological Risk Office (HERO) reviewed the November 13, 2014 revision "Final Phase I Completion Report" prepared by AMEC Environment & Infrastructure in Irvine, California.

BACKGROUND

HERO was requested to provide continuing toxicology and risk assessment support for the Former Pechiney Cast Plate, Inc. Facility (aka, Alcoa) in Vernon, California (Site). Site background information was not included in the report. HERO reviewed the Final Phase I Completion Report (RACR) for below grade demolition and soil removal. The soil removal was for metals and polychlorinated biphenyls (PCBs) detected in shallow soil at concentrations exceeding site-specific remedial goals for future commercial/industrial workers. A soil vapor extraction (SVE) system for soil remediation for volatile organic chemicals (VOCs) was temporarily suspended during the below grade demolition and soil removal.

SCOPE OF REVIEW

HERO reviewed the document for aspects relevant to human health risk assessment to determine whether soils remaining in place meet the remedial goals (RGs) and are protective of human health for current and potential future exposures. HERO defers to DTSC Project Management staff on appropriateness of the sample locations and analyses conducted. The soil sampling and analytical methods were not included in the report; HERO assumes other DTSC staff have assessed the adequacy of the sampling and analysis methods for risk-based decision making, including that all metals used at the former facility were included in the analytical suite (for example, aluminum, iron and/or tin).

GENERAL COMMENTS

1. Risk of COCs remaining in place: For the majority of the acreage, the report appears to demonstrate the removal of soil from areas identified with concentrations above the approved risk-based cleanup goals (RBCGs). However, HERO does not agree that remaining soils are below site-specific remedial goals (RGs). There are some locations that may remain with soil concentrations above RGs that may not be protective of human health for potential future occupational exposures, as presented below in GENERAL COMMENT 6. HERO recommends submittal of responses to comments to GENERAL COMMENTS 2 through 7 and all SPECIFIC COMMENTS.
2. COCs: The apparent intent of the Phase I soil removals was only to address metals and polychlorinated biphenyls (PCBs). The rationale for not including other chemicals of concern (COCs) with contamination levels above RGs was not presented. HERO recommends discussing the rationale in the responses to comments.
3. RGs for VOCs: There are no RGs for VOCs, although soil VOCs have been identified as COCs in need of remediation. The report mentions soil remediation for VOCs using soil vapor extraction (SVE) was performed in the Phase I Area prior to demolition and will continue post demolition of the below grade features (Section 1.0, Introduction and Background, page 2). In addition, ethylbenzene was detected in soil above both the residential and commercial US EPA Regional Screening Level (RSLs). HERO recommends discussing in the responses to comments whether VOCs were evaluated in the risk assessment and the rationale for no RGs in the Phase I RACR.
4. PAHs: There are no remediation goals for polynuclear aromatic hydrocarbons (PAHs) or dioxins/furans which may have been formed, for example in the Swindell Furnace Pits. The report did not address whether PAHs or dioxins and furans were included in the analysis of soil from the furnace pits or areas with residue. HERO recommends discussing in the responses to comments whether PAHs and dioxins/furans were included in the site characterization and risk assessment and if so presenting the results. If PAHs and/or dioxins/furans were not included in the site

characterization and risk assessment, discuss the rationale for this decision in the responses to comments.

5. Asbestos Containing Material, Appendix C: Asbestos pipes are depicted in Figure 11 and Table 7 denotes disposal of 9 tons of asbestos. None of the soil surrounding the pipes was analyzed for asbestos. HERO recommends discussing the rationale for not analyzing any soil samples for asbestos.
6. Data gaps: There are locations lacking data to support the report's conclusion that soil left in place is all less than RGs. HERO provides below examples of data that support soil concentrations remain above RGs, or in the case of lead which had no remedial goal but was reported in the RACR at soil concentrations above levels of concern for protection of human health. HERO recommends discussing in the responses to comments all chemicals of concern (COCs) left in place above remedial goals.
 - A. TPH may remain in soil above RGs based on HERO's analysis of Table 4 and the corresponding Figures. For example, sample 268-SS-01 at 0 ft below slab level is listed as a verification sample, not excavated, with a soil total TPH concentration of 40,000 mg/kg.
 - B. PCBs remain in soil above RGs as evidenced by samples #507 (12 ft), #508 (8 ft), #561 (17 ft), #824 (7 ft), 507-SS-004 (10 ft), 507-SS-005 (10 ft) and 548-SS-014 (10ft) where soil concentrations of total PCBs ranged from 4.03 to 91.6 mg/kg.
 - C. Metals, including lead remains or may remain in soil at concentrations above levels of concern for protection of human health based on HERO's evaluation of Table 6 and corresponding Figures. The HERO recommended screening level for lead is 80 mg/kg for residential land use and 320 mg/kg for commercial land use (DTSC, 2014; <http://www.dtsc.ca.gov/AssessingRisk/upload/HHRA-Note-3-2.pdf>). Lead was detected in a stockpile soil sample at 1200 mg/kg (Press Pit #5 East stockpile, sample #331, Table 6) and lead-impacted paint was noted in Table 2 (concrete PCB results), yet no soil samples from the Press Pit #5 area were analyzed for lead.
7. Area Released for Completion, Section 4.0, Soil Removal, Verification Sampling, and Backfill, page 5: Contrary to page 5, Section 4, there is no text in Section 7 discussing which portions of the Phase I area "were released for completion". Please provide in the responses to comments discussion and maps with the portions of Phase I area released for completion.

SPECIFIC COMMENTS

1. Tables 2 through 6: To improve data interpretation, HERO recommends adding a column to identify the depth below ground surface. The Tables currently have only

soil depth below slab (bls). Furthermore, the report does not specify whether the soil depth below slab is the depth below the former building foundation slab or the sump/pit bottom.

2. Tables 2 through 6: HERO recommends adding a column to specify the verification samples for each sample that was excavated due to exceeding RGs.
3. Tables 2 through 6: HERO recommends adding to the Tables a column with the alpha-numeric grid location of the sample, as this will greatly aid in the reader's ability to establish the site sample locations on corresponding Figures.
4. Table 3, PCBs: Sample 275-SS-01 from 3 ft bls with total PCBs at 6.8 mg/kg is reported as excavated; however, all of the verification sample are reported as from 2 ft including bottom verification samples 275-SS-06 and 275-SS-07. HERO recommends addressing this apparent discrepancy in the responses to comments.

CONCLUSIONS

HERO reviewed the Former Pechiney Cast Plate, Inc. Facility (aka, Alcoa) in Vernon, California (Site), Phase I Soil Remedial Action Completion Report (RACR) dated November 13, 2014 revision. Based on the information in the report, HERO does not agree that soil has been removed to concentrations protective of human health for commercial workers. HERO recommends submittal of responses to comments to append to the Final Phase I RACR.

Please contact me at (916) 255-6633 or karen.dibiasio@dtsc.ca.gov if you have any questions.

REFERENCES

DTSC, 2014. *HERO HHRA Note Number 3, Use of USEPA Regional Screening Levels*. July 14, 2014: <http://www.dtsc.ca.gov/AssessingRisk/upload/HHRA-Note-3-2.pdf>

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